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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,540	09/18/2001	William G. Dewenter	TI-31444	9789
23494	7590	08/23/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			TRAN, DZUNG D	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2638	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,540

Applicant(s)

DEWENTER, WILLIAM G.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amentment filed on 04/27/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orino U.S. Patent no. 5,627,669 in view of Schairer U.S. Patent no. 6,301,035.

Regarding claim 1, Orino discloses in figure 1, a communications system, comprising:

a transmitter having a light source (laser diode 1) for generating a directed light beam modulated to transmit a data signal (col. 4, lines 51-52);

a controllable mirror 4 for directing the light beam toward a receiver;

a photodiode 8 for receiving light reflected from substantially the same direction as the light is directed by the mirror 4; and

control circuitry (11, 12), coupled to the photodiode 8 and to the mirror 4, for controlling the aim of the mirror (col. 5, lines 6-12); and

a receiver, comprising: a lens 7; a photodiode 6 for receiving incident light from the transmitter through the lens 7.

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Orino differs from claim 1 of the present invention in that Orino does not disclose a reflective ring surrounding the lens, for reflecting incident light from the transmitter back to the transmitter.

Schairer discloses a receiver comprises len 2 and a reflective ring 13 surrounding the lens 2, capable of reflecting incident light from the transmitter back to the transmitter. Since it has reflective capability, it will reflect some of the incident light back to the transmitter.

At the time of the invention was made, it would have been obvious to a person of ordinary skill to replace the lens unit 7 of Orino with the lens 2 and a reflective ring 13 surrounding the lens 2 taught by Schairer. One of ordinary skill in the art would have been motivated to do that in order to redirect the optical beam back to the source transmitter. Thus it enhances the alignment between the two transceivers.

Regarding claim 2 and 3, Schairer discloses the reflector 13 and the lens adapted to each other (e.g., see col. 3, lines 9-10, it is equivalent to the mirror element having a frame, a mirror surface, and a plurality of hinges) and the reflector 13 comprises a plurality of corner cube elements (col. 3, lines 37-38). Furthermore, reflector element formed of a single piece of crystalline material is well known in the art.

Regarding claim 4, Orino discloses light source is a laser diode 1.

Regarding claim 5, Orino discloses the transmitter further comprises: a lens 2 for spreading the modulated laser beam.

Conclusion


3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Kato et al. U.S. Patent no. 6,618,177. Light space transmission device
 - b. Bloom et al. U.S. Patent no. 5,710,652. Laser communication transceiver and system
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran
08/22/2005



KENNETH VANDERPUYE
PRIMARY EXAMINER